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(54) PROCESSING BAG

(57)Abstract:
PROBLEM TO BE SOLVED: To provide a processing bag by which washing is kept from being damaged, and washing time can be shortened, and which is excellent in durability by using a piece of clott which has a specified amount of multi-filaments with a designated denier made of ultrahigh molecular weight polyethylene with a weight mean molecular weight of a specified value, and the METSUKE weight of which satisfies a specified expression.
SOLUTION: A processing bag is formed by a piece of cloth which has 50% or more multi-filaments with 10-4800 denier made of ultrahigh molecular weight polyethylene with the weigh means molecular weight of 500000 or more, and the METSUKE weight of which satisfies the expression: W≤2n×D0.5. In the expression, W indicates net METSUKE weight (g/m2), m2 = length 1m (JIS L 1043) × width standard stitch number (stitch/15.15cm)×6.6, D indicates denier (d) of used raw yarn, and (n) indicates the number of yarns for forming a net leg. Thus, the METSUKE weight of the net is thus regulated to enough utilize the fiber performance and it is possible to obtain a processing bag which has high durability and contamination resistance lowering of processing efficiency.

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* NOTICES *

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]
[Claim 1] A processing bag with which it has 10-4800-denier multifilament which weight average molecular weight becomes from 500,000 or more ultra high molecular weight polyethylene 50% or more, and eyes weight is moreover characterized by coming to use a textile which satisfies the following formula.
W<=2 nxD0.5W: Weight with network classification of land (g/m2)
m2 = length 1m(JIS L 1043) x width of face Number [of specification credit] (credit / 15.15cm) x6.6D: A denier of activity raw thread (d)

n: A thread number which constitutes **** (book)
[Claim 2] A processing bag according to claim 1 characterized by a textile being rales ****.
[Claim 3] A processing bag according to claim 1 characterized by multifilament consisting of filaments of 10 deniers or less of single yarn.
[Claim 4] A processing bag according to claim 1 characterized by being throwing whose twist constant K which multifilament specifies by the following formula is one or less.
K= (TxD0.5) / 73K= twist constant T= number of twist (a time/inch)
D= denier (d)
[Claim 5] A processing bag according to claim 1 with which multifilament is characterized by whenever [25 or more g/d and breaking extension] being [6% or less and an initial elastic modulus] 650 or more g/d for tensile strength.

[Translation done.]

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[The technical field to which invention belongs] This invention relates to the processing bag which is used for home wash, operation linen, Tencel (registered trademark) processing, etc. and which can search for high endurance.
[0002]
[Description of the Prior Art] Generally the thing using the polyester filament as a network which constitutes the processing bag of home wash, operation linen, and Tencel which rubs and is used for processing etc. is used until now.
[0003]
[Problem(s) to be Solved by the Invention] In home wash, operation linen, etc., the processing bag of the network ground usage aiming at protection of the washing from the division for every customer, the carbon button which has a sharp angle, a fastener, etc., prevention related to cloth, protection of the washing from a wash machine, etc. has been used more widely than old. However, while improvement of compaction (throughput) of the time amount which wash takes with development of a machine, and the time amount which Tencel processing (it is rubbed and processed) takes is being enhanced the washing or the ground rubbed and processed -- the reinforcement of the very thing Since it was not necessarily improving in any way from old and the reinforcement of the processing bag using a polyester filament itself was not necessarily improving in any way from old, either, effects, such as compaction of the processing time, were not able to be acquired only by development of a machine, therefore -- impossible -- compaction of the processing time etc. -- aiming -- wash or the network itself which will be in a severer wear condition, and the life of a processing bag will become short as a result, and will form about [being uneconomical] and a processing bag if it rubs and the strength of processing is raised -- fuzz and the fluff which dropped out -- the washing or Tencel processing -- it happened that the grace of the ground falls remarkably and it had become with a big wall when performing a technological innovation. Moreover, while the lack of a life of a processing bag is regarded as questionable, when processing the ground of a color which the polyester fiber itself used for a processing bag is polluted with a color, is easy, and is different especially in Tencel processing, that remarkable deterioration of the Ikuji grace by color change etc. tends to take place was also the big technical problem which should be improved. this invention persons made it possible to offer the processing bag in which the raw material engine performance was made to reflect efficiently by using ultra-high-molecular-weight-polyethylene multifilament in view of the above-mentioned conventional technical problem.
[0004]
[Means for Solving the Problem] That is, a processing bag by this invention has 10-4800-denier multifilament which weight average molecular weight becomes from 500,000 or more ultra high molecular weight polyethylene 50% or more, and comes to use a textile with which eyes weight is moreover satisfied of the following type.
W<=2 nxD0.5W: Weight with network classification of land (g/m2)
m2 = length 1m(JIS L 1043) x width of face Number [of specification credit] (credit / 15.15cm) x6.6D: Denier of activity raw thread (d)
n: A thread number which constitutes **** (book)
It is the above-mentioned processing bag characterized by multifilament consisting of filaments of 10 deniers or less of single yarn as a concrete mode. The above-mentioned processing bag characterized by a textile being rales ****. The above-mentioned processing bag characterized by being throwing whose twist constant K which multifilament specifies by the following formula is one or less.
K= (TxD0.5) / 73K= twist constant T= number of twist (a time/inch)
D= denier (d)
Multifilament is the above-mentioned processing bag with which whenever [25g / //d / or more and breaking extension] is characterized by an initial elastic modulus being 650 or more g/d by tensile strength 6% or less.
[0005] Hereafter, it explains to details. Weight average molecular weight is 2 million or more ultra-high-molecular-weight-polyethylene fiber preferably 500,000 or more, and 10 deniers - 4800 deniers of fibrin material used by this invention consist of 200-1200-denier multifilament preferably. And as for tensile strength of this multifilament, a thing of 650 or more g/d is recommended 6% or less whenever [25 or more g/d and breaking extension], as for an initial elastic modulus. A processing bag which it **** or ******, using the above-mentioned multifilament 50% or more, and is made into the object is manufactured. When the amount of ultra-high-molecular-weight-polyethylene multifilament used is less than 50%, it becomes difficult for a trouble which originates in a fluff from about [that the predominance of initial engine performance to polyester filament usage's processing bag used so far in the use concerned is not securable] and the above-mentioned wear-resistant lack to actualize, and to attain the desired end of this invention. The amount of 80 - 100% used is recommended preferably. **** is the most desirable although any of woven knitted goods or **** are sufficient as a processing bag of this invention. Although there is a penetration network besides a tubercle network of ****** etc. in a gestalt of a network, in the use concerned, magnitude (size) of the knot section is the same as magnitude (size) of ****, and a rales network which is excellent in the gestalt holdout of a mesh is the most desirable. Furthermore, if said multifilament is larger than 10dp(s) at this time, lowering of tubercle reinforcement and connection reinforcement will become remarkable, and will pose a big problem on character of a rales network which knits raw thread up and uses it (bending here and there). Therefore, as for a single-yarn denier of a filament which constitutes multifilament to be used, it is desirable that it is less than [10d denier].
[0006] said **** -- the above-mentioned multifilament -- as it is (gray yarn) -- or although thread processing of twisting, interweaving,

covering. a false twist. etc. was performed, any may be used. but when actual ****** is taken into consideration. it is desirable that the twist constant K expressed with the following formula uses one or less throwing.
K= (TxD0.5) / 73K= twist constant T= number of twist (a time/inch)
D= denier (d)
Moreover. an initial elastic modulus of high powerful fiber used although it will be made very important to secure a moderate mesh if an inflow into a processing bag of processing liquid or runoff effectiveness to the outside of a processing bag is taken into consideration is high. and in case it can tell elongation dramatically that it is pile **** and **** is knit up. it is very important for whenever | breaking extension] being very small to make it layout in consideration of these. Therefore. in this invention. it becomes possible to form a moderate mesh by carrying out a braid so that it may become rales **** of eyes weight below a numeric value by which the following type table is carried out.
W<=2 nxD0.5W: Eyes weight of **** (g/m2)
m2 = length 1m(JIS L 1043) x width of face Number | of specification credit] (credit / 15.15cm) x6.6D: Denier of activity raw thread (d)
n: A thread number which constitutes **** (book)
although it will come out not to mention making an inflow of processing liquid. and runoff effectiveness fall if a value of this W turns into beyond a value specify by the above-mentioned formula. the angle which raw thread which constitutes an abbreviation axis of **** and **** otherwise makes serves as an obtuse angle more. and the **** strength per own unit eyes weight of **** will decline remarkably. and serves as the form where raw material engine performance is not fully utilize. Therefore. a proposal of a processing bag which has high endurance and high resistance to contamination is enabled. without reducing processing effectiveness by specifying eyes weight of **** in this invention fully taking advantage of fiber engine performance. It is W<=1.9 nxD0.5 preferably. Hereafter. an example and an example of a comparison are shown.
|0007]
[Example]
(Example 1)
Activity raw thread Ultra-high-molecular-weight-polyethylene multifilament (Dyneema: a registered trademark. Toyobo Co.. Ltd. make) 800 denier 790 filament single-yarn denier: 1-denier tensile strength : Whenever [30 g/d breaking extension] : Initial elastic modulus of 4.0% : 1000 g/d network specification **** 800dx3 17 credit /. 15.15cm rales ********** 140cm sizing processing **** |0008]
|A table 1]

測定項目	単　位	実施例1	評　価　方　法
目付重量	g／m²	117	長さ1m(JIS L 1043)×幅117掛の重量
引張強力(経)	Kgf	101	JIS L 1043 (5日6節)
(緯)	〃	135	〃
耐久性 保持(経)	%	95	140min／回のテンセル(揉み)加工を20回実施した後の強力保持率で評価
耐久性 率　(緯)	%	92	〃
耐久性 毛羽状態	――	良好(軽微)	加工に従事する熟練者の目視判定による
耐久性 汚染状態	――	良好(軽微)	〃
耐久性 使用限界	回	75	同様の処理を繰返し行った際の使用限界
被処理布帛の仕上がり具合	――	良好	加工に従事する熟練者の目視判定による

|0009] (Example 2)
Activity raw thread Ultra-high-molecular-weight-polyethylene multifilament (Dyneema: registered trademark) 400 denier 390 filament single-yarn denier: 1-denier tensile strength : Whenever [30 g/d breaking extension] : Initial elastic modulus of 4.0% : 1000 g/d network specification **** 400dx3 30 credit /. 15.15cm rales ********** 140cm |0010]
|A table 2]

測定項目		単位	実施例2	評価方法
目付重量		g／m²	103	長さ1m(JIS L 1043)×幅198掛の重量
引張強力(経)		Kgf	58	JIS L 1043 (5目6節)
(緯)		〃	69	〃
耐久性	保持(経)	%	82	140min／回のテンセル(揉み)加工を20回実施した後の強力保持率で評価
	率 (緯)	%	89	
	毛羽状態	——	良好(軽微)	加工に従事する熟練者の目視判定による
	汚染状態	——	良好(軽微)	〃
	使用限界	回	48	同様の処理を繰返し行った際の使用限界
被処理布帛の仕上がり具合		——	良好	加工に従事する熟練者の目視判定による

[0011] (Example 1 of a comparison).
Activity raw thread Ultra-high-molecular-weight-polyethylene multifilament (Dyneema: registered trademark)
Activity raw thread Ultra-high-molecular-weight-polyethylene multifilament (Dyneema: registered trademark) 800 denier 790 filament single-yarn denier: 1-denier tensile strength : Whenever [30 g/d breaking extension] : Initial elastic modulus of 4.0% : 1000 g/d network specification **** 800dx3 26 credit /. 15.15cm rales ********** 140cm sizing processing **** [0012]
[A table 3]

測定項目		単位	比較例1	評価方法
目付重量		g／m²	182	長さ1m(JIS L 1043)×幅172掛の重量
引張強力(経)		Kgf	88	JIS L 1043 (5目6節)
(緯)		〃	97	〃
耐久性	保持(経)	%	93	140min／回のテンセル(揉み)加工を20回実施した後の強力保持率で評価
	率 (緯)	%	90	
	毛羽状態	——	良好(軽微)	加工に従事する熟練者の目視判定による
	汚染状態	——	良好(軽微)	〃
	使用限界	回	76	同様の処理を繰返し行った際の使用限界
被処理布帛の仕上がり具合			本長	加工に従事する熟練者の目視判定による

[0013] (Example 2 of a comparison)
Activity raw thread Polyester 820d-360f (2.3d of single yarn)
Activity raw thread Polyester 820d-360f (2.3d of single yarn) Tensile strength Whenever [:6.8 g/d breaking extension] : Initial elastic modulus of 16.3% : 128 g/d network specification **** 820dx3 17 credit /. 15.15cm rales ********** 140cm sizing processing **** [0014]
[A table 4]

測定項目	単位	比較例2	評価方法
目付重量	g／m²	１２２	長さ1m(JIS L 1043)×幅112掛の重量
引張強力(経)	Kgf	４６	ＪＩＳ Ｌ １０４３（５目６節）
(緯)	〃	６０	〃
耐久性 保持(経)	%	１２	１４０ｍｉｎ／回のテンセル(揉み)加工
耐久性 率(緯)	%	２１	を２０回実施した後の強力保持率で評価
耐久性 毛羽状態	----	著しく不良	加工に従事する熟練者の目視判定による
耐久性 汚染状態	——	著しく不良	〃
耐久性 使用限界	回	１０	同様の処理を繰返し行った際の使用限界
被処理布帛の仕上がり具合	----	不良	加工に従事する熟練者の目視判定による

[0015] (Example 3 of a comparison)
Activity raw thread Polyester 410d-180f (2.3d of single yarn)
Tensile strength Whenever [:6.9 g/d breaking extension] : Initial elastic modulus of 16.2% : 131 g/d Dyneema 400d-390f (1d of single yarn)
Tensile strength Whenever [:30g //d / breaking extension] : Initial elastic modulus of 4.0% : 1000 g/d network specification **** (polyester 410d+ Dyneema 400d) x3 17 credit /, 15.15cm rales ********** 140cm sizing processing **** [0016]
[A table 5]

測定項目	単位	比較例3	評価方法
目付重量	g／m²	１１８	長さ1m(JIS L 1043)×幅112掛の重量
引張強力(経)	Kgf	６６	ＪＩＳ Ｌ １０４３（５目６節）
(緯)	〃	７６	〃
耐久性 保持(経)	%	５２	１４０ｍｉｎ／回のテンセル(揉み)加工
耐久性 率(緯)	%	５１	を２０回実施した後の強力保持率で評価
耐久性 毛羽状態	----	不良	加工に従事する熟練者の目視判定による
耐久性 汚染状態	——	不良	〃
耐久性 使用限界	回	１４	同様の処理を繰返し行った際の使用限界
被処理布帛の仕上がり具合	----	不良	加工に従事する熟練者の目視判定による

[0017]
[Effect of the Invention] According to this invention, it made it possible to be able to perform short-time wash, and for home wash which was moreover excellent in endurance, operation linen, and Tencel (registered trademark) to rub, without damaging the washing-ed, and to offer the suitable processing bag for processing etc.

[Translation done.]